





Oxford Read and Discover

How We Make Products

Alex Raynham

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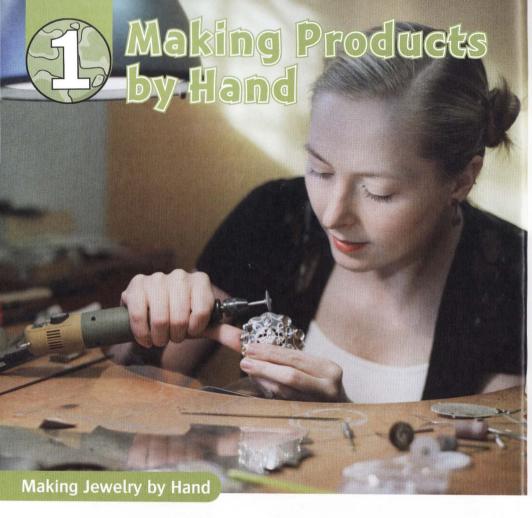
Introduction

Products are things that we make and use, like clothes, chocolate, computers, and homes. People make lots of products with big machines in factories. People also make products by hand.



What products can you see here? What products do you use every day? How do we make these products?

Now read and discover more about how we make different products!



About 200 years ago, there weren't many factories or machines, and people made many products by hand. Today, some people still make products by hand. They use tools to make products like chairs, clocks, jewelry, and musical instruments. It takes years to learn how to make these things.

People make guitars from wood. They cut thin pieces of wood to make the front and back of the guitar. To make the sides, they put long, thin pieces of wood in water.

Then they use hot tools to make the wood the right shape for the sides. They fix these pieces together with glue. Later, they make the neck of the guitar, and they put the strings on it.





We make clothes from lots of different materials like wool and cotton.

To make jeans, people use cotton fabric. They cut the fabric into different shapes for pieces of the jeans, like the legs and pockets. They use a sewing machine to sew these pieces together. Then they sew buttons and a zipper on the front of the jeans.



People use wool to make clothes like hats or sweaters. At home, some people use wool and knitting needles to knit clothes. They knit different pieces of the clothes, like the arms, the front, and the back. Then they sew the pieces together. In factories, people use knitting machines to knit clothes.

People don't only knit clothes. Lauren Porter knitted this amazing Ferrari with 19 kilometers of wool!



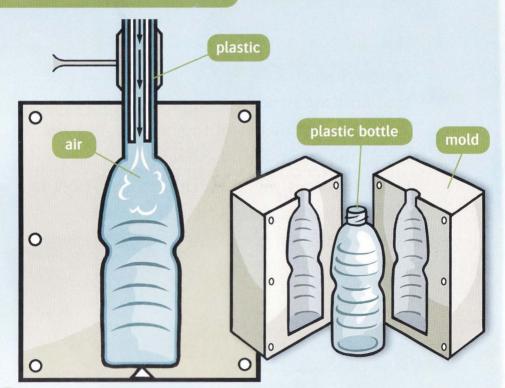


Plastic Products

We make a lot of products from plastic, like bottles and toys.

To make a plastic product, machines put hot plastic in a mold. Then the plastic is the same shape as the mold. To make some products like bottles, machines also blow air into the molds.

How To Make a Plastic Bottle



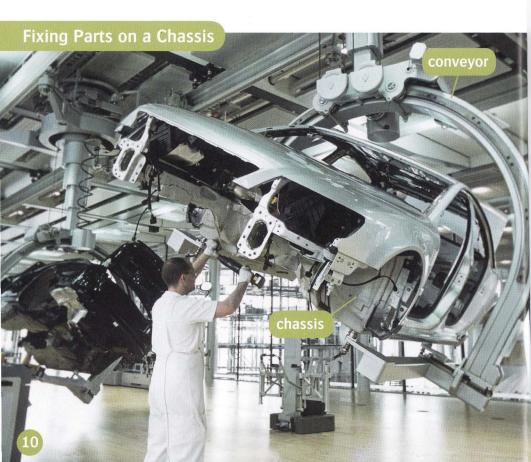


To make a new plastic product like a toy, people draw it and then make a model of it. In a factory, people use the model to make a mold for each part of the toy. Machines put hot plastic in the molds to make plastic parts. People or machines fix the parts together, and they paint the toys. Then the toys go to stores.

It's good to recycle plastic. We can make new things from plastic waste.



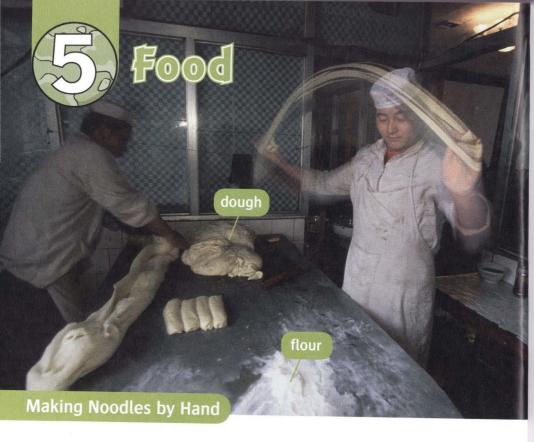
To make a car, people use a metal called steel to make a strong chassis. People also use steel to make big shapes for the outside of the car. Then robots fix the outside to the chassis. A conveyor moves the chassis around the car factory, and people fix many parts on the chassis.





Later, other machines paint the car. Then, people fix other parts on the car, like the engine, doors, wheels, and seats for people to sit on. There are about 35,000 parts in a car!

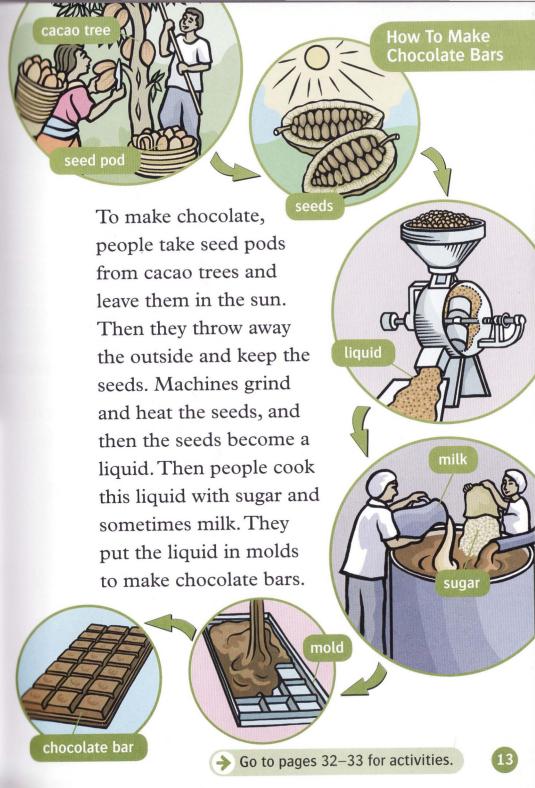
Around the world, people make 48 million cars every year. This uses lots of steel. We can recycle steel from old cars, and use it again.



Do you like noodles or chocolate? Do you know how people make this food?

People make noodles from grains like rice or wheat. To make rice noodles, people grind rice into flour. Then they mix flour with water to make dough.

In factories, machines push dough through holes to make noodles. Some people make noodles by hand. They pull the dough between their fingers.





We build different homes in different ways. To build an apartment block, people make shapes for the floors and columns from

long pieces of steel. Then people put wood around the shapes, and they put a liquid called concrete.

a liquid called concrete in them. When the concrete becomes hard like stone, they take the wood away.



Putting Plaster on a Wall People build walls to make the rooms in each apartment. They put wires in the walls to carry electricity, and they wires put pipes in the walls and floors to carry water. They plaster often fix tiles on the floors, and on the walls in the bathroom and kitchen. They put plaster on the walls. Then they can paint the walls.





Many people made this book. Do you know how we make books?

An author writes the words, and an editor checks the words. Other people draw pictures or take photos for the book. Designers use a computer to put the words, photos, and pictures into pages.



In factories, printing machines print the pages on paper. They print 16 pages on one big piece of paper, then other machines cut the paper into pages.

People used machines to fix the pages of this book together. Sometimes people sew the pages together, then they fix them to the cover with glue.

book is made of thousands of very small red, blue, yellow, and black dots.

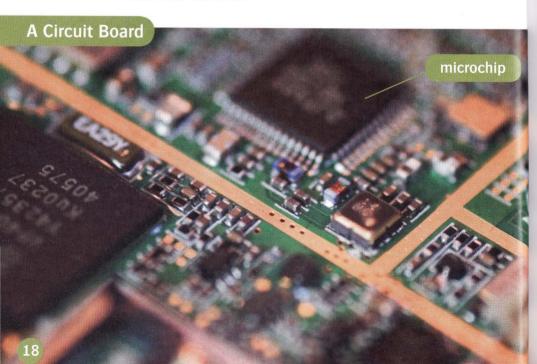


Electronic Products

Cell phones, digital cameras, and computers have lots of very small electronic parts inside them. Circuits carry electricity around a product. Microchips are parts with thousands of small circuits inside them.

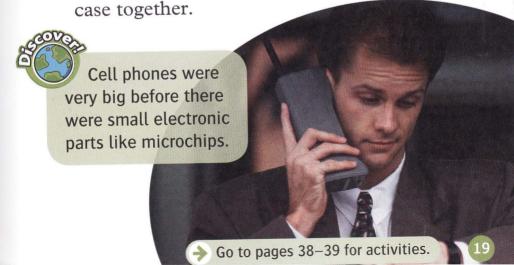
They make a product work.

To make a cell phone, people put computer programs on a microchip. Then they fix the microchip and other electronic parts on a circuit board.





People make the phone case from plastic. They fix the circuit board and parts like the screen and camera inside the case. Then they put the front and back of the





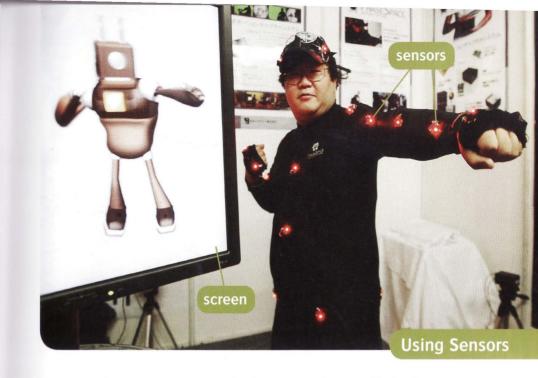
Computer Games

To make computer games, people write computer programs.

People also make digital characters for the games. To make a digital character, people make a drawing. Then they use a computer to make the picture into a digital skeleton, made of lines. On the computer, people can move the skeleton and they can see it from different sides. Then they add a face, clothes, and colors.

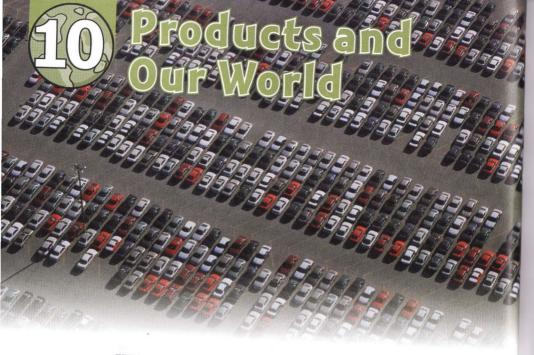
Making a Digital Character





Sometimes, to help to make a digital character, people use machines called sensors. A person wears the sensors. The sensors tell a computer how the person moves, and the computer makes a moving picture of the character. Then computer programs move the characters on the screen when people play the game.

People play a new game to check it. Then they sell the game on the Internet or in stores.



When we make products, we use energy like electricity. To make one car, we use the same energy as someone watching television for 100 years! We also use materials and make waste. To make one car, we make about 28 metric tons of waste.

Every day, people throw away millions of products like toys, cans, and bottles. Most waste goes to landfills, and sometimes people throw waste in other places like rivers. This is bad for our world.

A Bag Made From Old Products

It's good to recycle old products. We can use materials from old products to make new things, like this bag.



We can recycle old products like plastic bottles, metal cans, and clothes. At recycling centers, people sort the old products. Then machines use the old products to make recycled materials. We can use these materials to make new products.



1 Making Products by Hand

Read pages 4–5.

1 Write the words.

front neck back side strings



2 Complete the sentences.

instruments hand tools jewelry factories

- 1 About 200 years ago, people made products by <u>hand</u>.
- 2 Today, people make lots of products in ______.
- 3 You can wear _____.
- 4 People make some musical _____ by hand.
- 5 They often use ______ to make things.

3 Match. Then write the sentences.

People make guitars

They make

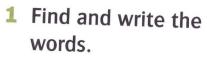
They cut them by hand. They fix the pieces thin pieces of wood. Then they put from wood. 1 People make quitars from wood. 4 Circle the odd one out. 1 clocks chairs (factories) jewelry 2 neck back string front 3 fix make tools cut 4 wood glue water front 5 What do people make by hand? Write products from pages 4-5. 1 jewelry 3

strings on the guitar.

together with glue.

Clothes

Read pages 6-7.

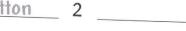


С	p	У	С	b	V	Z	m
l	Z	f	a	b	r	i	С
0	a	n	i	٧	j	p	S
t	d	t	Ĉ	h	У	p	t
h	r	p	0	С	k	е	t
е	g	W	t	q.	S	r	k
S	b	u	t	t	0	n	S
p	W	0	0	l	d	n	u
j	е	a	n	S	W	٧	m











6

3









Write true or false.

People use wool fabric to make jeans.

false

- People make some clothes by hand.
- People sew a zipper on the back of the jeans.

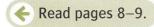
5

- People sew pieces of fabric together to make some clothes.
- 5 People use knitting machines to knit things in factories.

3 Complete the sentences.

 People use materials like and wool to make clothes. We use sewing to make clothes like jeans. Knitting are tools that we use at home
like jeans.
3 Knitting are tools that we use at home
4 We sew the different of wool clothes together.
Color. Then write the colors, clothes, and materials.
Jess is wearing a pair of <u>jeans</u> .
They are and
they're made of
She's also wearing a
It's and it's made of
What clothes are you wearing today? What color are they, and what are they made of?

Plastic Products



toys blow waste model mold recycle

Write the words.







1

2









5

6

Find and write the words.

peopleshapestorepartsbottlemachineproductplastic

1 __people __ 4 ____

2 _____ 5 ____

2	Number the sentences in order.
3	
	How to Make a Plastic Toy:
	They make a mold for each part.
	They make a model of the toy.
	People or machines fix the parts together.
	People draw a new toy.
	Machines use hot plastic and molds to
	make plastic parts.
4	that you use at home.
	This is a·
	I use it to·
	I like it because
	<u> </u>

4 Cars

- Read pages 10-11.
- 1 Find and write the words.



- 1 We use this metal to make car parts. _____
- 2 These machines help us to make cars. _____
- 3 You sit on these inside a car. _____
- 4 People fix parts on this. _____
- 5 You open this to get into a car. _____

2 Circle the correct words.

- 1 There are thousands of parts / chassis in a car.
- 2 A conveyor fixes things together / moves things.
- 3 Robots fix the outside of the car to the chassis / engine.
- 4 Other people / machines paint the car.
- 5 We can / can't recycle steel from old cars.

3 Complete the sentences.

parts wheels robots chassis paint conveyor shapes

1	To make a car, people make a strong
2	People also make big for the outside of the car.
3	Then fix the outside to the chassis.
4	A moves the chassis around the factory.
5	People fix many on the chassis.
6	Later, other machines the car.
7	Then people fix parts on the car like the
Αı	nswer the questions.
1	What is a car chassis made of?
	A car chassis is made of steel.
2	How many parts are there in a car?
3	How many cars do people make every year?
4	What can people do with old cars?

5 Food

Read pages 12–13.

1 Write the words.

dough fingers noodles flour

1 _____

2 ____

3 ____

4 ____



2 Write noodles or chocolate bars.

1 We put liquid into molds to make these.

chocolate bars

2 We use water to make these.

3 These are made from the seeds of trees.

4 These have sugar in them.

5 We can make these from grains.

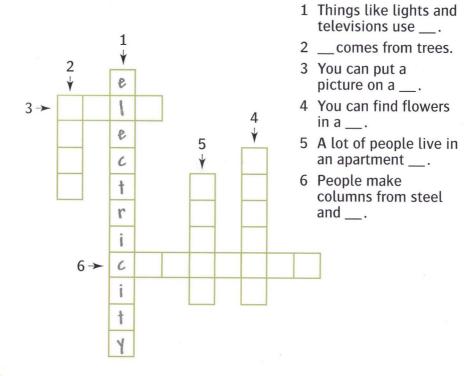
3	Number the sentences in order.
	How to Make Chocolate Bars:
	People put sugar and milk into the liquid.
	People leave the seed pods in the sun.
	People take the seed pods from the cacao tree.
	They put the liquid in molds.
	Machines grind and heat the seeds.
	They throw away the outside and keep the seeds.
4	Circle the correct words.
	 We grind cacao / rice to make flour. We mix flour and water / milk to make dough. In factories, machines push dough through seeds /
	holes to make noodles.
	4 To make noodles, people pull / push the dough between their fingers.
5	What is your favorite food? When do you eat it?

6 Homes

- Read pages 14-15.
- 1 Match.
 - 1 Tiles
 - 2 Pipes
 - 3 Concrete
 - 4 Wires
 - 5 Plaster

can be a liquid.
carry electricity.
goes on walls.
go on walls and floors.
carry water.

2 Complete the puzzle.



3	W	Vrite true or false.					
	1	We build all homes in the same way.					
	2	We use steel to build apartment blocks.					
	3	We build walls to make the rooms in an apartment.					
	4	Pipes carry electricity around a home.					
	5	We put plaster on the walls after we paint them.					
	6	You can put tiles on walls.					
4	Aı	nswer the questions about your home.					
	1	Do you live in a house or an apartment?					
	2	How many rooms are there in your home?					
	3	What color are the walls?	í				
	4	Do you have tiles in your home?	4				
	5	What is your favorite room?					

7 Books

Read pages 16–17.

1 Complete the sentences.

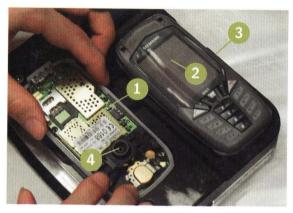
	print glue pages cover dots																
	1 There are 48 in this book.																
	2	The is the outside of a book.															
	3	We the book on paper.															
	4	All the pictures in this book are made of															
	5	Sometimes we use to fix the book together.															
)	Νι	umber the sentences in order.															
	How to Make a Book:																
	De	signers put the words and pictures into pages.															
	Other machines cut the paper into pages.																
	Au	thors write the words.															
	People fix the pages together.																
	Ma	achines print the pages.															
	Ot	her people draw pictures or take photos.															
	Ed	itors check the words.	$\overline{\bigcap}$														
										artors officer the words.					Editors check the words.		

3	3 Find and write the words from pages $16-17$					
	1	three people who make books				
		author				
	2	two machines that make books				
	3	two parts of a book				
4	A	nswer the questions.				
	1	What do designers use to put the words and pictures into pages?				
	2	How many pages do machines print on one piece of paper?				
	3	What are the pictures in books made of?				
	4	What do editors do?				
	5	How did people fix the pages of this book together?				

8 Electronic Products

- ← Read pages 18–19.
- Write the words.

screen circuit board camera case



- 1
- 2
- 3
- 4
- 2 Complete the sentences.

plastic cameras circuits electronic electricity

- 1 Circuits carry _____ around a product.
- 2 There are lots of _____ parts inside cell phones.
- 3 Microchips have small ______ inside them.
- 4 People make cell phone cases from ______.
- 5 A lot of cell phones have . .

2	Write.	truo	Or	fal	CO
3	Write	uue	OI	Idi	se.

- 1 Electronic products have microchips.
- 2 Electronic parts are usually very big.
- 3 People make phone cases from metal.
- 4 The first cell phones had microchips.

4 Find and write the words.

j g i w k x q p y c v m c e l l p h o n e r b r u z l o p i j c												
v m c e l l p h o n e r b r u z l o p i j c	a	n	n	m	i	S	f	d	t	h	0	е
r b r u z l o p i j o	j	g	g	i	W	k	X	q	р	у	С	l
	V	m	m	C	е	l	l	р	h	0	n	e)
	r	b	b	r	u	Z	l	0	р	İ	j	С
p i o g i a iii ii g c	p	r	r	0	g	r	a	m	n	g	С	t
b c c i r c u i t a	b	С	С	С	i	r	С	u	i	t	a	r
y p h y c a d t h m d	у	р	р	h	У	С	а	d	t	h	m	0
n s i s k s c r e e r	n	S	S	i	S	k	S	С	r	е	е	n
a n p n i e s c p r	a	n	n	р	n	İ	е	S	С	р	r	i
r o h t d f s i n a d	r	0	0	h	t	d	f	S	i	n	a	С

- 1 cell phone
- 3 5
- 4 c
- 5 m
- 6 e
- 7 <u>p</u>
- 8 _ c

5 What electronic products do you use every day? What do you use them for?

9

Computer Games



Read pages 20-21.

Write the words.

sensors digital character digital skeleton drawing





1

2 _____





3

4 _____

2 Match.

- 1 Computer games
- 2 Digital skeletons
- 3 People play new
- 4 Digital characters
- 5 Sensors

tell computers how a person moves.

are people in computer games.

are made with computer programs.

computer games to check them. are made of lines.

3 Number the sentences in order.

How to Make a Computer Game:

People sell the game on the Internet or in stores.

They use computers to make digital skeletons.

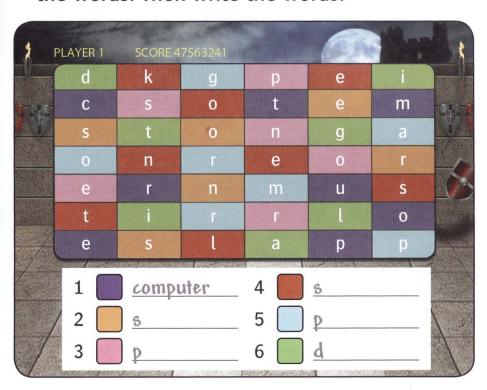
People draw the characters in the game.

They check the game.

4 Order the letters with the same color to find the words. Then write the words.

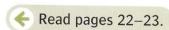
People add faces, clothes, and colors to

the skeletons.



10

Products and Our World



electricity landfill sort river cans recycling center

1 Write the words.







1 _____

2 ____







4 ____

5 _____

6 _____

2 Complete the sentences.

recycled recycling recycle products use

1 We can _____ old products.

2 At ____ centers, people sort the old products.

3 Machines ____ the old products to make ____ materials.

4 We use these new materials to make new _____

3	0	rder the words.
	1	we / products, / make / energy. / use / we / When
		When we make products, we use energy.

2	millions / throw / Every / away / people / day, /
	products. / of

```
3 waste / to / Most / goes / landfills.
```

- 4 Some / goes / rivers. / in / waste
- 5 can / products. / old / We / recycle

4 Find these numbers in the book. Then write sentences.

1 (19)

There are 19 kilometers of wool in the Ferrari.

- 2 (35,000)
- 3 (48,000,000)
- 4 (16)
- 5 28

A Product Poster

- Choose a product in this book.
- 2 Answer these questions and write notes.



What is the product?

What material is it made of?

Is it made by hand or in factories?

How do people make it?

What is it used for?

- 3 Make a poster. Find or draw pictures of your product and write sentences.
- Display your poster.

Products in My Room

1 Write eight different types of product that are in your room at home. Complete the chart.

4	What is it?	What's it made of?	What do you use it for?
1			
2			
3			
4			
5			
6			
7			
8			

- 2 Make a poster about products that are in your room. Find or draw pictures of the products.
- 3 Display your poster.

Picture Dictionary



blow



buttons



cans



chocolate



clothes



cotton



cover



cut



electricity



fabric



grains



grind



hard



heat



hole



landfill



machine



metal



million



model



musical instruments



pipe



plastic



pocket



pull



push



recycle



river



shapes



sort



stone



strings



throw away



tiles



tools



waste



wheat



wood



wool



zipper

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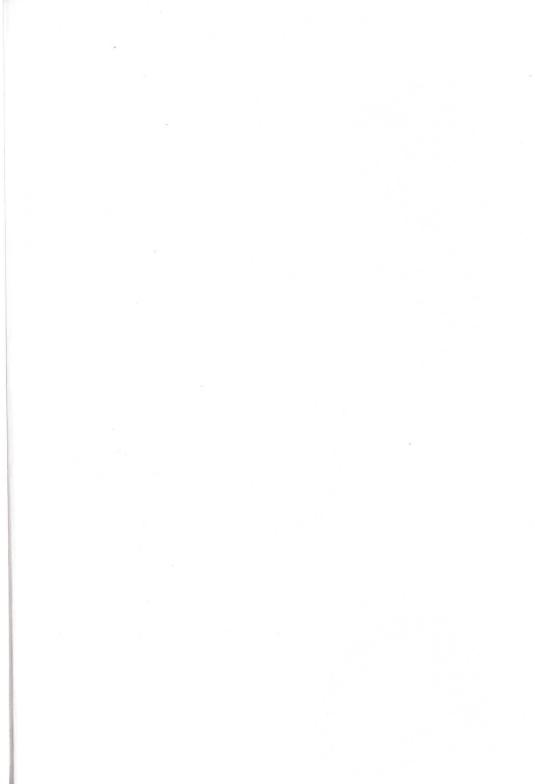
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Subject Area Level	The World of Science & Technology	The Natural World	The World of Arts & Social Studies
600 headwords	How We Make ProductsSound and MusicSuper StructuresYour Five Senses	Amazing MinibeastsAnimals in the AirLife in RainforestsWonderful Water	 Festivals Around the World Free Time Around the World
750 headwords	All About PlantsHow to Stay HealthyMachines Then and NowWhy We Recycle	All About Desert LifeAll About Ocean LifeAnimals at NightIncredible Earth	Animals in ArtWonders of the Past
900 headwords	 Materials to Products Medicine Then and Now Transportation Then and Now Wild Weather 	All About IslandsAnimal Life CyclesExploring Our WorldGreat Migrations	Homes Around the World Our World in Art
1,050 headwords	Cells and MicrobesClothes Then and NowIncredible EnergyYour Amazing Body	 All About Space Caring for Our Planet Earth Then and Now Wonderful Ecosystems 	Helping Around the World Food Around the World

For younger students, **Dolphin Readers** Levels Starter, 1, and 2 are available.





Oxford Read and Discover

How We Make **Products**

Alex Raynham

Read and discover all about how we make products ...

- · How many parts are there in a car?
- · How do we make chocolate bars?

Read and discover more about the world! This series of non-fiction readers provides interesting and educational content, with activities and project work.

Series Editor: Hazel Geatches

Audio CD Pack available

Word count for this reader: 1,306



Level 3
600 headwords



Level 4 750 headwords



Level 5 900 headwords



Level 6 1,050 headwords

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